

METHOD AND APPARATUS FOR ALIGNING MEMORY WRITE DATA
IN A MICROPROCESSOR

ABSTRACT OF THE DISCLOSURE

5 There is provided a method for aligning and inserting
data elements into a memory based upon an instruction
sequence consisting of one or more alignment instructions
and a single store instruction. Given a data item that
includes a data element to be stored, the method includes
10 the step of aligning the data element in another memory with
respect to a predetermined position in the memory, in
response to the one or more alignment instructions. A mask
is dynamically generated to enable writing of memory bit
lines that correspond to the aligned data element. The
15 memory bit lines are written to the memory under a control
of the mask. The generating and writing steps are performed
in response to the single store instruction.